

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Gordon Ajonina
Project title	Green Carbon inventories and sequestration in mangrove forest stands with various wood exploitation pressures along Central African Atlantic coast, Cameroon
RSG reference	8610-1
Reporting period	1 October 2010 – 1 October 2011
Amount of grant	£5986
Your email address	gnaionina@hotmail.com
Date of this report	31 October 2011

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
<p><u>Overall objective</u> <i>The Project aims at quantifying carbon stocks and sequestration in mangrove forest stands subjected to different wood exploitation pressures (undisturbed to degraded) by re-measuring and analyzing basic tree data (diameter, height) from fifteen 2-8 years 0.1ha permanent sample plots established by Cameroon Wildlife Conservation Society in partnership with Cameroon Mangrove Network and WWF along Cameroon coast complemented by mangrove biomass partitioning equations tested in the region by the author (Ajonina, 2008).</i></p>		Yes		Partially achieved because only the field work and data entry phases have been achieved within the period defined by the grant. This is due to inherent constraints in obtaining such field data from such a peculiar wetlands ecosystem nature (any plot re-measurement needs to correspond to plot establishment date). Remaining two important phases of data processing and technical report production needs to be completed.
<p>Project phases: 1) Field work: Tree and stand data collection through field measurement in four mangrove sites of six established permanent sample plots (PSP) (each plot 0.1ha with diameter limit of 1cm) <u>Planned:</u> November 2010 – August 2011 corresponding of establishment dates</p>			yes	Tree and stand data was fully collected in three of the four mangrove sites. Unforeseen weather and flooding events in the mangrove area (near border with Nigeria) in the last mangrove sites badly hindered access to the fourth data collecting sites in August (see pictures), road network cut just a few kilometres to site. The team had to return.
<p>2) Computer data entry: Computer entry of collected tree and stand data from the four mangrove sites <u>Planned:</u> August-September 2011</p>			yes	Just completed computer data entry of large mass of tree (over 5000 trees) and stand data.
<p>3) Processing of entered data: from the four mangrove sites <u>Planned:</u> September-October 2011</p>	yes			Data needs to be processed with required software.
<p>4) Production of technical paper: For publication in available scientific conferences, workshops or journals <u>Planned:</u> October-December 2011</p>	yes			Technical paper production follows data processing. However, many climate change adaptation initiatives in Africa and in the Congo basin forests especially in Cameroon where

				the author has participated are aware of the project and the central importance in producing badly needed information for climate change mitigation projects & programmes in the region especially REDD.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

In fact, an unforeseen weather and flooding events in the mangrove area (near border with Nigeria) in the last mangrove sites badly hindered access to the fourth data collecting sites in August (see pictures), road network cut just a few kilometres to reach the site. The team had to return and data collection had to be postponed for the fourth site till early December 2011 or January 2012.

3. Briefly describe the three most important outcomes of your project.

- Relevant tree and stand data collected from three of the four sites necessary for estimation of green carbon stocks and sequestration in mangrove stands.
- Complete data entered in appropriate format in the computer and data processing commencing though results still awaited from the fourth site
- Over six local community staff strengthened capacities in field data collection and entry process which is an important part and challenge in carbon monitoring and reporting work.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

As mentioned in question 3, over six local community staff strengthened capacities in field data collection and entry process which is an important part and challenge in carbon monitoring and reporting work.

5. Are there any plans to continue this work?

Remaining two important phases of a) data processing and b) technical report production for publication in available scientific conferences, workshops or journals needs to be completed.

6. How do you plan to share the results of your work with others?

Many climate change adaptation initiatives in Africa and in the Congo basin forests especially in Cameroon where the author has participated are aware of the project and the central importance in producing badly needed information for climate change mitigation projects and programmes in the region especially REDD. The author has participated in several national climate change adaptation fora in Cameroon and in the Congo Basin where interests has grown to replicate the methods in the mangroves of the Congo Basin countries (Congo, Democratic Republic of Congo, Gabon and Angola) within the framework of UNEP REDD Central Africa Mangroves involving the author as the principal investigator. Also in the USA Global Environmental Change Research in Africa.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The RSG has been slightly more than a year between October 2010 - October 2011. This compares favourably with the anticipated length.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
1.1. Field data Collection (materials-tree tags, cords, paints brushes, etc.)	261	257	4	
1.2. Boat hire	1173	1369	-196	Extremely difficult field conditions pushed boat owners to increase hire prices
1.3. Boat fuel	156	614	-458	Excess due to hire fuel cost in rural communities where this mangrove forests are found compared to town rates used in the initial budget
1.4. Boat driver	235	274	-39	
1.5. Local guide & porter	125	91	34	
1.6. Intersite land transport (car hire)	1173	1565	-392	Non RSGF amount. CWCS vehicle used
1.7. Intersite land transport (car fuel)	203	274	-71	
1.8. Daily Subsistence (DSA) field team	3441	2636	805	Team spent 3 of 6 days reaching the point where the road was cut in fourth field site before returning hence balance reflect non paid 6 days DSA.
Subtotal Field data collection	6767	7080	-313	
2.1. Data entry & analysis (stationery, materials, other docproduction costs)	131	136	-5	
2.2. Internet searches & telecommunication costs	261	300	-39	
3. Participation in national/regional fora (seminars, conferences, etc)	1000	1252	-252	Non RSGF amount. CWCS supported meetings/conference attendance
Subtotal (Data processing & reporting)	1392	1687	-295	
Total	8159	8767	-608	RSGF amount was £5986

The local currency used is Central Africa CFA (XAF) exchanged at 767 XAF = 1 £ (www.Xe.com)

9. Looking ahead, what do you feel are the important next steps?

- Field data completion in the fourth mangrove sites that was hindered in order to have a complete view of carbon stocks and sequestration in the whole of Cameroon Central African Atlantic coast.
- Procuring relevant software to finalise data analysis.
- Production of the badly needed scientific technical paper/document for publication in climate change adaptation and mitigation workshops, conference, etc and use in such projects and programmes to protect the Congo Basin forests and insights to mangrove forests elsewhere as more global attention now turns to protecting this ecosystem type.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

Grants from partners contribute largely to attaining my organisation's project and programme objectives; this has been largely reflected in every annual report and presentations in various categories of meetings.

11. Any other comments?

Just to use this opportunity to express deep gratitude to RSGF for the grant that has contributed much in our biomass and carbon monitoring efforts within the mangrove ecosystems critical in regulating local, regional and global climate. This initiative of RSGF should be encouraged to continue as it gives access to badly needed funds in developing countries especially Africa to undertake conservation work to improve wellbeing.